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EXAMINER	
RODRIGUEZ, GLENDA P	

ART UNIT	PAPER NUMBER
2651	6

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,979	SHIMOMURA ET AL.	
	Examiner	Art Unit	
	Glenda P. Rodriguez	2651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (US Patent No. 5, 486, 967).

Regarding Claim 1, Tanaka et al. teach a disk drive comprising:

A disk medium for perpendicular magnetic recording (See Abstract and Fig. 4 as depicted the perpendicular recording);

A read head, which reads a perpendicular magnetic recorded data signal from the disk medium (and Fig. 4, Element 101 and 102);

A preamplifier circuit (Fig. 50, Element 1004) including a read amplifier, which amplifies a read signal output from the read head (Col. 31, Line 5 and Fig. 50),

And a differentiating circuit, which differentiates a read signal output from the amplifier (Col. 31, Line 6 and Fig. 50);

A data channel which reproduces data from the read signal output from the preamplifier circuit (Col. 31, Line 20-22).

Regarding Claim 4, Tanaka et al. teach all the limitations of Claim 1. Tanaka et al. further teach the disk drive according to claim 1, wherein the data channel includes a read channel, which executes a reproduction signal processing of a longitudinal magnetic recording system to the read signal, and restores the perpendicular magnetic recorded data onto the disk medium (Col. 5, Lines 18-34).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2, 3, 8, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) in view Sakai et al. (US Patent No. 4, 656, 533).

Regarding Claim 2, Tanaka et al. teach all the limitations of Claim 1. Tanaka et al. fail to teach an adjusting circuit to adjust low cut-off frequency of the signal output from the read amplifier. However, this feature is well known in the art as disclosed by Sakai et al., wherein it teaches a read channel that has a preamplifier, a low pass filter that changes its cut-off frequency (or adjusting circuit) and a differentiating circuit that differentiates the read signal adjusted by the adjusting circuit (Pat. No. 4, 656, 533; See Fig. 3, and Col. 4, Line 58 to Col. 5, Line 8). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to

modify Tanaka et al.'s invention in order to adjust the cut off frequency to remove noise components.

Regarding Claim 3, Tanaka et al. teach all the limitations of Claim 2. Tanaka et al. fail to teach wherein the adjusting circuit comprises a filter circuit which adjusts the low cut-off frequency to 50 kHz or less or in range of from 1/2000 or less of the maximum recording frequency of the disk medium to a DC level. One of ordinary skill in the art would have been motivated to have adjusted the low cut-off frequency to 50 kHz or less or in range of from 1/2000 or less of the maximum recording frequency of the disk medium in order to optimize the data signal being reproduced in the medium since such ranges, absent any critically (i. e., unobvious and/or unexpected result(s)), are generally achievable through routine optimization/experimentation, and since discovering the optimum or workable ranges, where the general conditions of a claim are disclosed in the prior art, involves only routine skill in the art, *In re Aller*, 105 USPQ 233 (CCPA 1955). Moreover, in the absence of any critically (i. e., unobvious and/or unexpected result(s)), the parameters set forth would have been obvious to a person of ordinary skill in the art at the time the invention was made, *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Regarding Claim 8, Tanaka et al. teaches a preamplifier device for a disk drive including a disk medium for perpendicular magnetic recording and a read head data from the disk medium, said preamplifier device comprising:

A read amplifier, which amplifies a read signal output from the read head (Pat. No. 5, 486, 967; Col. 31, Line 5 and Fig. 50, Element 1004);

A differentiating circuit, which differentiates the read signal (Patent No. 5, 486, 967; Col. 31, Line 6 and Fig. 50).

Tanaka et al. fail to teach an adjusting circuit, which adjusts the low cut-off frequency of a read signal output from the read amplifier. However, this feature is well known in the art as disclosed by Sakai et al., wherein it teaches a read channel that has a preamplifier, a low pass filter that changes its cut-off frequency (or adjusting circuit) and a differentiating circuit that differentiates the read signal adjusted by the adjusting circuit (Pat. No. 4, 656, 533; See Fig. 3, and Col. 4, Line 58 to Col. 5, Line 8). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to adjust the cut off frequency to remove noise components.

Regarding Claim 9, Tanaka et al. and Sakai et al. teach all the limitations of Claim 8. Tanaka et al. further teach a circuit which sends the read signal output from the differentiation circuit to a data channel included in the disk drive, the data channel restoring perpendicular magnetic recorded data onto the disk medium (Pat. No. 5, 486, 967; Col. 31, Lines 4-20).

Regarding Claim 10, Tanaka et al. and Sakai et al. teach all the limitations of Claim 8. Tanaka et al. and Sakai et al. fail to teach wherein the adjusting circuit comprises a filter circuit which adjusts the low cut-off frequency to 50 kHz or less or

in range of from 1/2000 or less of the maximum recording frequency of the disk medium to a DC level. One of ordinary skill in the art would have been motivated to have adjusted the low cut-off frequency to 50 kHz or less or in range of from 1/2000 or less of the maximum recording frequency of the disk medium in order to optimize the data signal being reproduced in the medium since such ranges, absent any critically (i. e., unobvious and/or unexpected result(s)), are generally achievable through routine optimization/experimentation, and since discovering the optimum or workable ranges, where the general conditions of a claim are disclosed in the prior art, involves only routine skill in the art, *In re Aller*, 105 USPQ 233 (CCPA 1955). Moreover, in the absence of any critically (i. e., unobvious and/or unexpected result(s)), the parameters set forth would have been obvious to a person of ordinary skill in the art at the time the invention was made, *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

5. Claims 5 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) in view of Narita (US Patent No. 6, 178, 053).

   Regarding Claim 15, Tanaka et al. teach a disk drive comprising:

   A disk medium for perpendicular magnetic recording (Pat. No. 5, 486, 967; See Abstract);

   A read head, which reads a perpendicular magnetic recorded data signal from the disk medium (Pat. No. 5, 486, 967; Col. 31, Lines 4 and Fig. 4, Element 101 and 102);

A preamplifier circuit (Pat. No. 5, 486, 967; Fig. 50, Element 1004) including a read amplifier, which amplifies a read signal output from the read head (Pat. No. 5, 486, 967; Col. 31, Line 5 and Fig. 50),

And a differentiating circuit, which differentiates a read signal output from the amplifier (Pat. No. 5, 486, 967; Col. 31, Line 6 and Fig. 50);

A data channel which reproduces data from the read signal output from the preamplifier circuit (Pat. No. 5, 486, 967; Col. 31, Line 20-22).

Tanaka et al. fail to teach a TA detection circuit to detect occurrence of a thermal asperity of the read head signal output from the preamplifier circuit without being differentiated by the differentiation circuit. However, this feature is well known in the art as disclosed by Narita, wherein it teaches a read channel wherein it contains a TA detection circuit after the amplifier without receiving a signal without being processed by the preamplifying circuit (Pat. No.6, 178, 053; Fig. 10). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 16, Tanaka et al. and Narita teach all the limitations of Claim 15. Narita further teach wherein the TA detection circuit is included in a data channel, which restores perpendicular magnetic recorded data from the read signal

onto the disk medium (Pat No. 6, 178, 053; Col. 2, Lines 11-28). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 17, Tanaka et al. and Narita teach all the limitations of Claim 15. Narita further teach wherein the disk medium has a servo area wherein servo data is recorded and a user data area wherein user data is recorded, and further comprising: a selection circuit which outputs the servo data without differentiation processing by the preamplifier circuit while the servo data recorded in the servo area is being read from the read head, and outputs the user data differentiated by the preamplifier circuit while the user data recorded in the user data area is being read from the read head (Pat No. 6, 178, 053; Col. 2, Lines 14-16. Narita teaches that servo data and user data are recorded in the disk for a reading process; hence the disk medium has servo data and user data therein. And Col. 7, Lines 8-12). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 18, Tanaka and Narita teach all the limitations of Claim 15. Narita further relied on for the teaching of wherein the preamplifier circuit includes a selection circuit which selects one of the read signal output from the differentiation circuit (Pat No. 6, 178, 053; Col. 7, Lines 8-12) and the read signal output from the read amplifier; the TA detection circuit is included in a data channel which restores

the perpendicular magnetic recorded data from the read signal onto the disk medium (Pat No. 6, 178, 053; Col. 2, Lines 11-28); and further comprising; a controller which controls the selection circuit to send the read signal output from the differentiation circuit to the data channel at read operation, disables the output of the differentiation circuit at detection operation of the thermal asperity, and sends the read signal output from the read amplifier to the TA detection circuit (Pat No. 6, 178, 053; Col. 7, Lines 8-12 and Col. 7, Line 56 to Col. 8, Line 9). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 19, Tanaka and Narita teach all the limitations of Claim 18. Narita further teach wherein the controller, when reproducing a servo signal recorded in the servo area of the disk recording medium, controls the selection circuit to send the read signal output from the differentiation circuit to the data channel (Pat No. 6, 178, 053; Col. 7, Lines 12-19). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 20, Tanaka et al. and Narita teach all the limitations of Claim 17. Narita further teach wherein the controller controls the selection circuit by use of a servo sector pulse for determining the timing of reproduction operation of the servo data and a prohibition signal for instructing prohibition of detection operation of the

thermal asperity, and controls to enable the output of the differentiation circuit at reproduction operation of the servo data (Pat No. 6, 178, 053; Col. 7, Line 56 to Col. 8, Line 9). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 21, Tanaka et al. and Narita teach all the limitations of Claim 17. Narita further teach wherein the controller controls the selection circuit by use of a servo sector pulse for determining the timing of reproduction operation of the servo data and a prohibition signal for instructing prohibition of detection operation of the thermal asperity, and controls to enable the output of the differentiation circuit at reproduction operation of the servo data (Pat No. 6, 178, 053; Col. 7, Line 56 to Col. 8, Line 9). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

Regarding Claim 5, Tanaka et al. teach all the limitations of Claim 1. Tanaka et al. fail to teach a TA detection circuit to detect occurrence of a thermal asperity of the read head signal output from the preamplifier circuit without being differentiated by the differentiation circuit. However, this feature is well known in the art as disclosed by Narita, wherein it teaches a read channel wherein it contains a TA detection circuit after the amplifier without receiving a signal without being processed by the preamplifying circuit (Pat. No.6, 178, 053; Fig. 10). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to

modify Tanaka et al.'s invention in order to increase the cut off frequency to avoid errors (Pat. No. 6, 178, 053; See Abstract).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) in view of Li (US Patent No. 6, 501, 611). Tanaka et al. teach all the limitations of Claim 1. Tanaka et al. fail to teach wherein the preamplifier circuit includes a gain adjusting circuit to adjust a gain of the read signal. However, this feature is well known in the art as disclosed by Li, wherein it discloses a preamplifier with a gain adjusting circuit (Pat. 6, 501, 611; See Fig. 1 and Col. 4, Lines 25-37). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made in order to modify Tanaka et al.'s invention in order to acquire the desired gain value when performing read and write operations.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) in view of Hashimoto (US Patent No. 4, 724, 369). Tanaka et al. teach all the limitations of Claim 1. Tanaka et al. fail to teach wherein the preamplifier circuit includes a selection circuit, which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data channel. However, this feature is well known in the art as disclosed by Hashimoto, wherein it discloses a preamplifier circuit includes a selection circuit which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data

channel (Pat. No. 4, 724, 369; See Fig. 1and Col. 4,Lines 9-18). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to have a selection circuit in order to control the speed in the driver in the disk drive.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) and Sakai et al. (US Patent No. 4, 656, 533) as applied to claim 8 above, and further in view of Hashimoto (US Patent No. 4, 724, 369).

Regarding Claim 11, Tanaka et al. and Sakai et al. teach all the limitations of Claim 8. Tanaka et al. and Sakai et al. fail to teach wherein the preamplifier circuit includes a selection circuit, which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data channel. However, this feature is well known in the art as disclosed by Hashimoto, wherein it discloses a preamplifier circuit includes a selection circuit which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data channel (Pat. No. 4, 724, 369; See Fig. 1and Col. 4,Lines 9-18). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to have a selection circuit in order to control the speed in the driver in the disk drive.

Regarding Claim 12, Tanaka et al., Sakai et al. and Hashimoto teach all the limitations of Claim 11. Tanaka et al. further teach that the data channel produces a

read back signal from the perpendicular recording medium (Pat. No. 5, 486, 967; See Abstract). Tanaka et al. and Sakai et al. fail to teach teaches a preamplifier circuit includes a selection circuit which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data channel. Hashimoto teaches a preamplifier circuit includes a selection circuit which selects one of the read signal output from the differentiation circuit and the read signal output from the read amplifier, and sends the selected one to the data channel (Pat. No. 4, 724, 369; See Fig. 1and Col. 4,Lines 9-18). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to have a selection circuit in order to control the speed in the driver in the disk drive.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) and Sakai et al. (US Patent No. 4, 656, 533) as applied to claim 8 above, and further in view of Barber et al.(US Patent No. 6, 111, 711). Tanaka et al. and Sakai et al. teach all the limitations of Claim 8. Tanaka et al. and Sakai et al. fail to teach wherein the read amplifier comprises a direct current (DC) amplifier circuit, and further comprising; an input circuit to input a bias-adjusting signal for adjusting a bias level of the DC amplifier circuit from the external. However, this feature is well known in the art as disclosed by Barber et al., wherein it teaches read amplifier comprises a direct current (DC) amplifier circuit, and further comprising; an input circuit to input a bias-adjusting signal for adjusting a bias level of the DC amplifier circuit from the external (Pat.

No. 6, 111, 711; See Fig. 2 and Abstract). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to control the current in portions of the amplifier.

10. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967) and Narita (US Patent No. 6, 178, 053) as applied to claim 17 above, and further in view of Contreras et al. (US Patent No. 6, 420, 910). Tanaka et al. and Narita teach all the limitations of Claim 17. Tanaka et al. further teach a read head configured with a write head that enables perpendicular magnetic recording (Pat. No. 5, 486, 967; Col. 5, Lines 18-21); the preamplifier circuit includes the read amplifier, and a write amplifier to provide a write signal to the write head (See Fig. 50 and Col. 31, Lines 1-7). Tanaka et al. fail to teach the data channel includes a data decoding circuit which reproduces user data from the read signal output from the preamplifier, a servo demodulation circuit which reproduces servo data from the read signal, and a write data encoding circuit which corresponds to the write signal. However, this feature is well known in the art as disclosed by Narita, wherein it teaches the data channel includes a data decoding circuit which reproduces user data from the read signal output from the preamplifier, a servo demodulation circuit which reproduces servo data from the read signal, and a write data encoding circuit which corresponds to the write signal (Pat. No. 6, 178, 053; See Fig. 2B). Tanaka et al. and Narita fail to teach that the read head has a gmr element. However, this feature is well known in the art as disclosed by Contreras, wherein it teaches a

read head having a gmr element (Col. 1, Lines 26-29). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to have a gmr element in order to use a magnetic sensor.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Patent No. 5, 486, 967), Sakai et al. (US Patent No. 4, 656, 533) and Hashimoto (US Patent No. 4, 724, 369) as applied to claim 11 above, and further in view of Nagase et al. (US Patent No. 5, 396, 375). Tanaka et al., Sakai et al. and Hashimoto teach all the limitations of Claim 11. Tanaka et al., Sakai et al. and Hashimoto fail to teach a power controller which shuts down power supply to the differentiation circuit when the read signal output from the differentiation circuit is not selected by the selection circuit. However, this feature is well known in the art as disclosed by Nagase et al., wherein it teaches a controller that uses a switch used to selecting and applying power to a differentiating circuit (Pat. No. 5, 396, 375; Col. 7, Lines 36-40 and Col. 8, Line60 to Col. 9, Line 4). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Tanaka et al.'s invention in order to control the Q-factor in the circuit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (703)

305-8411. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

gpr
October 19, 2003.

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600